

Monday, 7 November 2005

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Cuphea Seed Yield and Oil Content Response to Harvest Methods.

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Cuphea viscosissima Jacq. x *C. lanceolata* W.T. Aiton, PSR23, is a new oilseed crop being developed in the North Central USA that has oil rich in medium chain fatty acids. These fatty acids are important in the manufacturing of soaps and detergents. Progress has been made in improving cuphea agronomically, but little is known about best management practices for its production. The objective of this study was to determine the best time and method to harvest for maximizing seed yield and oil content. The experiment was conducted at Prosper, ND and Morris, MN in 2004. The design was a randomized complete block with a factorial arrangement with four replicates. The factors were three harvest dates, swathed or straight harvest, and desiccation (control or paraquat dichloride (1,1'-dimethyl-4,4'-bipyridinium dichloride). Harvest dates were 10/6, 10/12 and 10/20 at Prosper and 9/30, 10/8, and 10/14 at Morris. The lowest seed moisture (115 g/kg) was obtained at the first swathing date at Prosper. At Morris, seed moisture decreased from 480 to 230 g/kg as harvest date was delayed. Seed moisture was the lowest for the desiccated-swathed treatment on Oct. 14. Seed yield decreased significantly as harvest date was delayed at both locations. At Prosper, straight combining resulted in greater seed yield than swathing. At Morris, greater seed yield (484 kg/ha) was obtained when paraquat was not applied independent of harvest method. At Prosper, oil content decreased with later dates when swathed. In general, straight combining without paraquat application seemed to be the best method to harvest.

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